SWEET SOUNDS ON THE TONGUE: THE LINGO OF MAKING MAPLE SYRUP

Just like any other profession or specialization in life, making maple syrup has its own vernacular. Since we are kicking off the sugaring season this time of year, I thought in this month's Kettle Tender post I would share some notes on the language of making maple syrup.

Maple Sugaring or just "sugaring" - is the process of collecting the sap (water with sugar and minerals dissolved in it) from the maple trees and boiling it down (concentrating the sugar) to make it into a sweet delicious syrup.

Sugarbush - the forest (stand, grove etc.) of maple trees where the sap is harvested.

Manny out on patrol in the sugarbush. He's taking a rest because the snow is deep and hard going!

Sugarmaker - the poor saps who makes maple syrup! (see below).

I imagine sugar makers would also made good gold miners. It takes one part dreaming, three parts elbow-grease, and a dash of gestalt.

Sugar shack, sugar house or sap house - the building which houses the evaporator and is where syrup gets made! On the smaller scale, these buildings are often unheated and seasonally used by the farmer. I think the tradition is to use them until they fall down. Hence the name, sugar shack.

The Sap Hound Maple Sugar House! We built this last year (fall of 2015), using Eastern Hemlock timbers that grew right here on our land. Notice Manny, the Sap Hound on patrol on top of the mound of snow to the left of the sugar house.

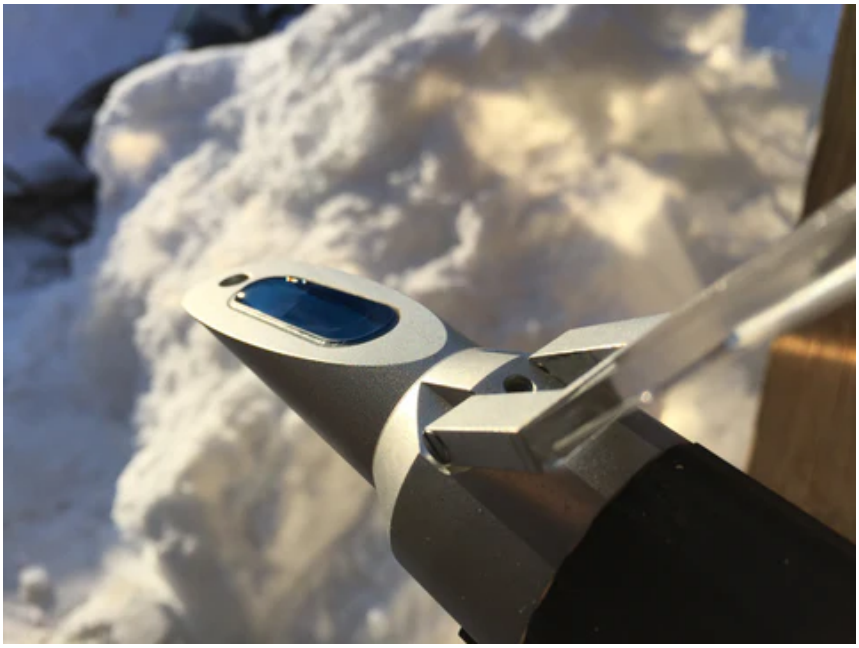
Run - A run is what happens when the weather conditions are just right for collecting sap. You'll hear people say "the sap's running." Side story: I got in a funny conversation with two old-timers at a gas station one early morning in January. We were all surprised about the early run. A-yut, it's early this year... Funnily enough it wasn't until halfway through our conversation I realized they were talking about the smelt run not the sap. I guess the Atlantic smelt perhaps? I'll let Nate's family of fishermen comment on that one... Turns out they had plenty of opinion about the early sap runs too. Okay seriously, this story should have started with, "You know you live in Maine when…"

Here you can see a tap in the maple tree and the tubing which the sap would run down a system of tubing all of the way to the sugar house.

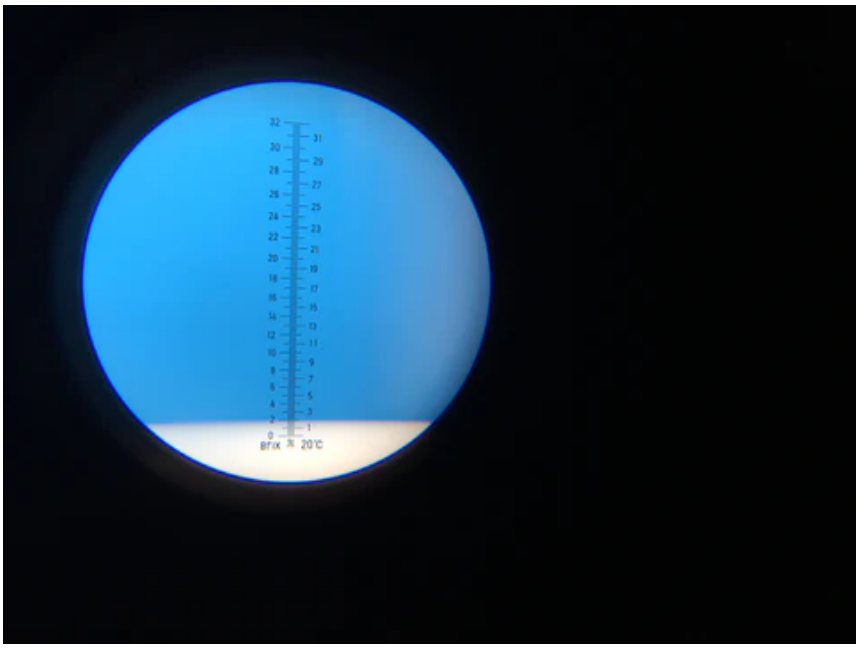
The term run, as applied to sap, comes from an old misunderstanding where people thought that the sap was stored in the roots of a tree overwinter, and when the spring thaw came, the sap would travel up the tree in warm days and back down to the roots in cold nights, thus making the sap “run” up and down the tree. Now scientists describe the process which makes it possible to collect sap more like this: the tree actually freezes solid with the sap in it through the winter. With the cold temperatures the gases trapped inside the tree (i.e. carbon dioxide) gets compressed. With the warm days during the spring the tree warms and the gas expands, creating a positive pressure inside the tree. That positive pressure pushes the sap out (or makes it “run”) to the buds of the tree, as well as out any injury (think broken branch, squirrel chew) or a tap hole.

Some tubing with sap in it!

Sap - It's always good to be clear about what Sap really is. Sap is the water inside a tree with lots of goodies like dissolved vitamins and minerals and sugar in it. All trees make sap, but not all are great for tasting, collecting and turning into syrup. Sap or maple sap, which is specifically from a maple tree, is just slightly sugary, often only 1-2% sugar, and at times when the sugarmaker is in luck up to 3%. It doesn't seem like much, but in the tree world, it's friggin' awesome.

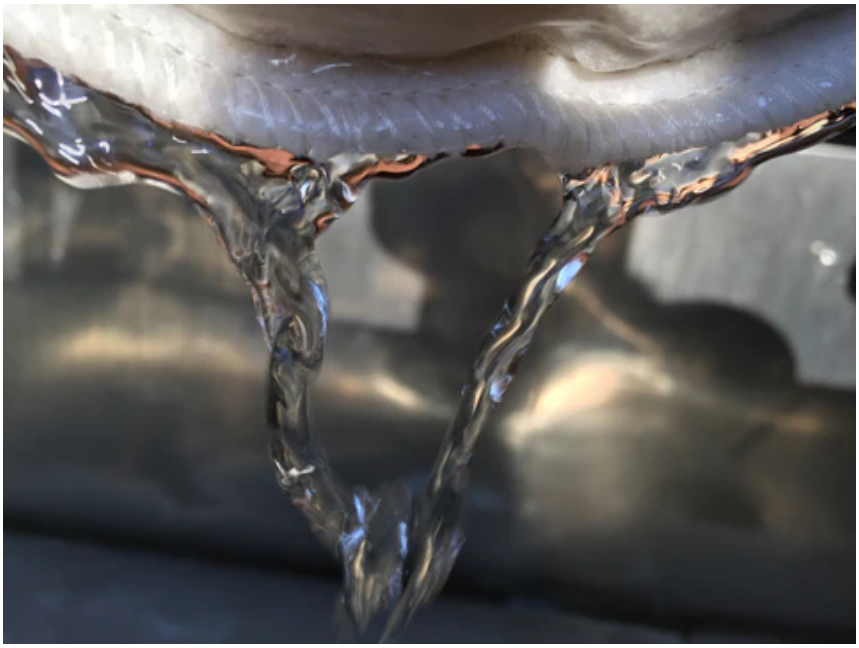


This is a refractometer, the tool we use to measure the sugar content of the sap. You place a couple drops of sap on the lens (the blue part) and then look through an eyepiece. The tool measures the angle in which the light is refracted through the liquid, the more concentrated the sap, the larger the angle of refraction.



This is what you see when you look through the refractometer. If you look closely you can see that this reading shows roughly 2% of the sap is sugar.

Another thing that makes the sap from maple trees particularly good is its unique maple taste, as well as the fact that sugar maples are long-lived, late successional species (think, they live long enough and get big enough that we can collect some sap from them without impacting their overall health). But enough about my love affair with maple trees... Sap is clear and water-like, so it's not like the thick sticky sweet stuff is just hanging out under the bark (although there are some interesting Abenaki legends that describe a time when it was so). And sap is so refreshing to taste! If you've never tried raw sap you'll have to put it on your (sap) bucket list.



Here's a shot of that clear refreshing sap as it runs through a filter into our collection tanks. It looks just like water.

Maple Syrup - The sap when concentrated to over 66% sugar is now called syrup. When we started turning our hobby maple operation into an actual business I had to remember to put the word maple in front of syrup. I guess when you grow up in Vermont you kind of assume there is no other kind.

These are some of my favorite bottles that we sell our organic maple syrup in. They are beautiful bottles made in Italy and we dip them in red wax for that extra special touch.

Tap or spile - The spile is the spout that gets driven into the tree, now more commonly referred to as the tap. People often ask if it hurts the tree. Being a fellow tree hugger, I understand the empathy. In our sugarbush the diameter of the spile is less than 5/16 of an inch and it is driven into the tree 1 inch deep. The impact is kept to a minimum for the health of the tree and there are best practices defined as to how many taps can go into a tree of a particular size. You cannot tap a tree under 10 inches in diameter and this means on average a tree is about 40 years old before it is tapped. I guess the short answer is, if it's done right, no putting in a tap doesn't hurt the tree. People who don't make maple syrup often ask how many trees you have. Sugarmakers ask how many taps.

Here is an up-close shot of a maple tree with a tap hole that has healed over.

I have to go off on a tangent here about the word spile itself, because it was love at first sight for me. You know how there are those words that you get attached to when you first hear them, they are just pleasant on the tongue or ear or both. Like marscenent. Or ottantotto (the number 88 in Italian). Anyway I quickly looked up the etymology of spile online, since I love it so much I figured maybe I should share something about it. Without checking the accuracy of any of these claims, it sounds like the word is perhaps German in origin, related to the words such as skewer, splinter or wooden peg. Since they used to make maple sugaring spiles out of wood, such as staghorn sumac (it's pithy and easy to hollow out) and others, this makes sense to me, but if there's anyone out there who knows better, I'd love to hear what you know. I guess on the other hand, sometimes the love in the mystery...

This is a modern tap or spile. It is hammered into the tree and directly connected to some tubing called a "drop line" which is just a small section of tubing that runs between the tree and another section of tubing.

A Boil - This is just what is sounds like. Boiling the sap down into syrup! Sugarmakers often judge the goodness of their season on the number of boils (hence the batches of syrup made).

It is usual to save a vial from each batch of maple syrup made, to help with grading purposes. You can see how each batch can be slightly different in color.

Evaporator - This is the large pan or set of pans used to boil the sap. When we were a hobby sugarmakers we used just a square flat stainless steel pan on top of a barrel on a fire pit. Now our evaporator is 3x10 feet long, is comprised of 2 pans (usually there is a “front” and a “back” pan that are connected by piping).

The evaporator, housed inside our sugar house! There are many components, including a steam hood, preheater for the sap, float boxes that help keep the level of sap in the pan consistent, two pans on top of a long firebox called the arch.

The bottom of the back pan is not flat but has a series of “fins” which allows for more surface area for the heat of the fire to reach the sap. Our front pan has a little flu-like system that allows for the syrup to travel through by density. This allows us to draw off syrup when it reaches the right temperature continuously throughout a boil, rather than have a whole pan turn to syrup at once.

This is our front pan with boiling maple syrup in it. The pan is separated so that it flows by density toward the spout where we draw off pure maple syrup at generally a temperature of 219 degrees F.

Arch - The actual firebox below the pans is called the arch. It is the part of the evaporator that acts like Audrey from Little Shop of Horrors. “Feed me Seymour!” It has an insatiable need to be fed firewood.

This is a picture of my dad loading the arch (firebox) with firewood.

Maple Cream - This is maple syrup that has been boiled down further and is then chilled and stirred (imagine whipped maple syrup). There is no dairy in the maple cream we at Sap Hound make. Now, maple butter on the other hand is sometimes exactly the same thing as I just described, or sometimes as the name implies, it is butter with maple in it. If you're confused, just ask the chef for details!

Organic Maple Cream stacked on the kitchen table. I think of it as whipped maple syrup.

Maple Candy - This is maple syrup that has been boiled down even further than cream, also stirred then poured into molds. Hard maple candy has been boiled longer than the soft maple candy which melts in your mouth. I would say soft maple candy is more prevalent around here, but not entirely sure if that's accurate. They're both fantastic.

This is the soft maple sugar candy that is being poured into molds.

Maple Sugar - This is maple syrup that has been boiled down even further than candy! It is like granulated white sugar but obviously much better. It is also stirred until it crystallizes, and is cool because it gives off a burst of heat of crystallization in the process (think high school chemistry, wear your goggles and don't lean over the lab bench!). This is it folks, this was the traditional way to store maple before refrigeration, as a dry sugar, not syrup. Makes sense right?

Sugar on snow - boil the good stuff a bit, pour it on some snow, just make sure it's not yellow (how can you not mention it).

Jack Wax - This is that lovely maple taffy more traditionally shared in Quebec where boiled down syrup is poured in a line down some snow and you roll it up on a popsicle stick. Delicious!

Grade(s) - There are now four grades that are internationally recognized as the standards for maple syrup. We get asked about grades a lot, so if you want to know more please refer to our about maple syrup page. Generally speaking, every batch of maple syrup is unique. We use a system of grading for both the color and taste of maple syrup to try to help consumers understand what they are getting in the jug.

A grading kit is used to help determine the grade of a batch of maple syrup. A sample from each batch is put into a grading vial and then compared to the standard colors in a grading kit.

The darker syrups, often made later in the season have a more robust maple flavor. They are described as more earthy, although I feel this doesn't quite capture it. Tasting the dark syrups are like taking a trip through your childhood, with a substantial taste of the sweetness of timelessness and rich organic matter found in the woods. Elitists love the delicate grades of maple syrup (the lightest) and who can blame them. They are usually made earlier in the season, and are boiled for the least amount of time (thus less of the maillard browning reaction happens, resulting in a less brown color). The taste itself is actually more delicate in terms of the maple flavor, think less full-bodied if we were drinking wine.

Here's a shot of that sweet ooey goey delicious stuff coming right off of the evaporator.

Okay folks. That's all I have in me for definitions (if you can call them that!). Let me know if you have any that you think I should add to the list!

Breathe deep, laugh loud, and love what you do.

Corrie

Sap Hound Maple's Sugarhouse with Pleasant Mountain the background.